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10/572,714

03/21/2006

David Lowell McNeely

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3403

24498 7590 11/30/2010

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EXAMINER

SHAH, TANMAY K

ART UNIT

PAPER NUMBER

2611

MAIL DATE

DELIVERY MODE

11/30/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### **DETAILED ACTION**

1. This communication is in response to the Amendment to application 10/572,714 filed on 11/10/10.

#### ***Response to Arguments***

2. Applicant's arguments filed 11/10/10 have been fully considered but they are not persuasive.
3. Regarding claim 1, Applicant argues that neither Raphaeli nor Shiraishi teaches wherein the filter operates at sampling frequency lower than the sampling frequency of the converter and the circuitry that process the modulated output.
4. In response to above-mentioned arguments, applicant's interpretation of the applied reference has been considered. However, the applied reference teaches limitations of argued matter.
5. First, Examiner uses primary reference Raphaeli to teach A/D converter and then a filter and a then a modulator as shown in Fig. 2. Examiner used the secondary reference Shirishi to teach the amended feature that the sampling frequency of the filter is lower than the sampling frequency of the converter (the digital filters at a half sampling rate of the A/D converter 62 and 63 to, col 2, line 26 -30). So, the output from the output from the Shirishi (modulator) will have the same rate as the A/D converter. In other words the filter and the A/D converter rate of the Rapaeli can be replaced with Shirishi.
6. Regarding claims 9 and 17 the same rationale is applicable.

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7. Applicant argues after final action issued by the office that the features of claim 8 is not taught or by neither of Raphaeli, Shirishi or Beck.

8. First, Examiner believes that applicant agreed with Examiner since did not present any arguments in the previous response. Secondly, Examiner still believes that the features claimed in claim 8 still taught by Beck. Beck teaches different tap each having different delay and each tap can be considered a sub-filter or a plurality of filters as claimed. As explained in previous office action and described on page 3, paragraph 30.

9. Regarding claim 16, the same rationale is applicable.

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TANMAY K. SHAH whose telephone number is (571)270-3624. The examiner can normally be reached on Mon-Thu (7:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Payne can be reached on 571-272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/TANMAY K SHAH/  
Examiner, Art Unit 2611